

REMARKS

Claims 2-4, 6, 8, 11-15 and 18-26 are pending in the present application. Claims 2, 6, 11, 18 and 24 have been amended herein. No new matter has been added. Applicants respectfully request reconsideration of the claims in view of the following remarks.

Claim 6 was objected to because the term "contact member" at line 2 should read "contact tip." Applicants believe that the Examiner was referring to claim 2 and has corrected the error in that claim. In addition, the term "contact member" in claim 24 has been corrected.

Claims 6, 2-4, 8, 11-15, 18-20 and 22-23 have been rejected under 35 U.S.C. § 103(a) as unpatentable over Doezenia et al. (U.S. Patent No. 6,198,300, hereinafter "Doezenia"). In addition, claims 6, 2-4, 8, 11-15 and 18-26 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Itoh et al. (U.S. Patent No. 5,584,166, hereinafter "Itoh"), in view of Doezenia. Applicants respectfully traverse these rejections.

Claim 6, as amended, specifically recites "an adhesive layer of elemental titanium arranged beneath the titanium nitride layer so that the adhesive layer is between the surface of the contact tip and the titanium nitride layer and contacts both the surface of the contact tip and the titanium nitride layer." The references of record do not teach or suggest the limitations of claim 6.

Doezenia teaches a TiSi_2 layer between a silicon contact tip and a TiN layer. Doezenia never teaches, however, an adhesive layer of elemental titanium arranged beneath the titanium nitride layer so that the adhesive layer is between the surface of the contact tip and the titanium nitride layer and contacts both the surface of the contact tip and the titanium nitride layer.

Further, as admitted in the office action, Itoh does not teach the titanium nitride coating or the adhesive between the contact tip and the titanium nitride layer. Since neither reference alone

teaches the elements of the claim, the combination of references cannot teach the elements of the claim. As a result, it is respectfully submitted that claim 6 is allowable over the references of record.

Claims 2-4 and 21-23 depend from claim 6 and add further limitations. It is respectfully submitted that these dependent claims are allowable by reason of depending from an allowable claim as well as for adding new limitations.

Claim 11, as amended herein, specifically recites "coating at least in the area of the contact tip with a titanium layer; [and] coating the probe needle at least in the area of the contact tip ..., wherein the coating comprise coating with titanium nitride over the titanium layer, wherein the coating with titanium and titanium nitride takes place in situ to form a bilayer of Ti:TiN over the contact tip."

The references of record do not teach or suggest forming a coating of titanium and titanium nitride in situ to form a bilayer of Ti:TiN over the contact tip. As discussed above, Itoh does not teach or suggest any titanium layers and Doezeema only teaches forming TiSi_2 . A TiSi_2 :TiN layer is not the same as a Ti:TiN layer. Since the references do not teach or suggest the limitations of claim 11, it is respectfully submitted that this claim is allowable.

Claims 8 and 12-15 depend from claim 11 and add further limitations. It is respectfully submitted that these dependent claims are allowable by reason of depending from an allowable claim as well as for adding new limitations.

Claim 18, as amended, specifically recites "contacting a test probe [that includes a contact tip] to at least one of the pads, ... the contact tip being coated with a layer of elemental titanium and a layer of titanium nitride overlying the layer of titanium, which form a Ti:TiN bilayer coating over the tip."

Once again, Applicant respectfully submits that the references of record do not teach or suggest a probe tip with a Ti:TiN bilayer coating over the tip. As a result, claim 18 is allowable over the references of record.


Claims 19-20 and 24-26 depend from claim 18 and add further limitations. It is respectfully submitted that these dependent claims are allowable by reason of depending from an allowable claim as well as for adding new limitations.

Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Ira S. Matsil, Applicants' attorney, at 972-732-1001 so that such issues may be resolved as expeditiously as possible. No fee is believed due in connection with this filing. However, should one be deemed due, the Commissioner is hereby authorized to charge, or credit any overpayment, Deposit Account No. 50-1065.

Respectfully submitted,

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Date

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